

AMENDMENTS TO THE DRAWINGS

The attached two drawing sheets include changes to Figures 1 and 4 and replace the original drawing sheets that included Figures 1 and 4 thereon. In Figures 3 and 4, the labels for several of the blocks have been amended to conform to the description in the Specification.

Attachment: Two replacement sheets

REMARKS/ARGUMENTS

This case has been carefully reviewed and analyzed in view of the Official Action dated 6 march 2006. Responsive to the objections and rejections made in the Official Action, Claims 1 – 5 have been amended to clarify the language thereof and/or the combination of elements which form the invention of the subject Patent Application. Additionally, Claims 6 – 14 have been cancelled by this Amendment and new Claim 15 added.

In the Official Action, the Examiner objected to the drawings because the block identified with the reference numeral “52” was not labeled in correspondence with the description in the Specification. A corrected formal drawing of FIG. 4 has been submitted herewith, correcting the label identified by the Examiner as well as the block identified with the reference numeral “51”. Further, misidentification of blocks in FIG. 1 have also been corrected to conform with the Specification.

In the Official Action, the Examiner objected to Claims 1 – 14 due to informalities therein. Claims 1 – 5 have been amended to correct those informalities kindly noted by the Examiner. It is believed that the Amendment made herein overcomes the Examiner’s objection.

In the Official Action, the Examiner rejected Claims 1 and 2 under 35 U.S.C. § 102(b), as being anticipated by Uchida et al., U.S. Patent No. 6,078,829. Claim 10 was rejected under 35 U.S.C. § 103(a) as being unpatentable over

Uchida et al., in view of Ali et al., U.S. Patent No. 6,770,028 and Claim 11 was rejected under 35 U.S.C. § 103(a), as being unpatentable over Uchida et al. in view of Bye et al., U.S. Patent No. 6,647,345. Further, Claims 3, 6 and 12 were rejected under 35 U.S.C. § 103(a), as being unpatentable over Uchida et al. in view of Johansen et al., U.S. Published Patent Application 2003/0070485.

Before discussing the prior art relied upon by the Examiner, it is believed beneficial to first briefly review the structure of the invention of the subject Patent Application, as now claimed. The invention of the subject Patent Application is directed to a physiological function detecting system. The system includes an earphone including a physiological function detecting unit. The physiological function detecting unit includes a sensor module having an output coupled to a signal converting module. The physiological function detecting system also includes a portable electronic entertainment product coupled to the earphone for output of audio entertainment signals thereto and receiving physiological signals from an output of the signal converting module. The portable electronic entertainment product includes (a) a receiving circuit having an input coupled to the output of the signal converting module for receiving the physiological signals therefrom, (b) display coupled to the receiving circuit for displaying data relating to operation of the portable electronic entertainment product and the physiological signals, (c) a memory coupled to the receiving circuit for storing the physiological signals, and (d) a control circuit coupled to the receiving circuit for initiating an

alarm output responsive to detection of the physiological signals exceeding a pre-established limit.

From another aspect, the invention of the subject Patent Application, as now defined in Claim 3, is directed to a physiological function detecting system which includes a mobile phone including a mobile phone circuit, a display coupled to an output of the mobile phone circuit for displaying data relating to operation of the mobile phone, and a control circuit having an output coupled to the mobile phone circuit. The physiological function detecting system also includes a detecting unit with a detecting sensing module and a signal converting module combined therein, the signal converting module receiving a physiological function signal from the detecting sensor module, converts the signal into a mobile phone receivable physiological signal, and transmits the physiological signal to the mobile phone through one of a wired connection or a wireless connection. The mobile phone circuit receives the physiological signal from the signal converting module and couples the physiological signal to the display module for display thereof. The mobile phone further includes a transmission interface coupled to the mobile phone circuit for receiving the physiological signals therefrom for transmitting the physiological signals to a remote location, and including a memory module receiving physiological signals from the mobile phone circuit for storage thereof. The control circuit initiates an alarm output responsive to detection of the physiological signals exceeding a pre-established limit.

Still further, the invention of the subject Patent Application, as now defined in Claim 15, is directed to a mobile phone incorporating a physiological function detecting system. The mobile phone includes a longitudinally extended housing having an opening formed therein and a display disposed on the housing for displaying both data relating to operation of the mobile phone and physiological data. The mobile phone includes a mobile phone circuit disposed in the housing and having an output coupled to the display. The mobile phone includes a memory disposed in the housing and being coupled to the mobile phone circuit for storage of at least the physiological data, and a control circuit disposed in the housing and being coupled to the mobile phone circuit. The mobile phone includes a detecting unit displaceably mounted within the opening in the housing. The detecting unit includes a physiological detecting sensor, and a signal converting module coupled to the physiological detecting sensor for coupling the physiological data to the mobile phone circuit. The control circuit initiates an alarm output responsive to detection of the physiological data exceeding a pre-established limit. Still further, the mobile phone includes a pushbutton extending from the housing and is longitudinally displaceable to longitudinally displace the detecting unit from the opening in the housing, as shown in FIGS. 5A and 5B.

In contradistinction, the Uchida et al. reference is directed to a measuring apparatus for biological information. A sensor element 1 includes a speaker 8 light receiver 6 and light emitter 5 for detecting biological information and

providing feedback in the form of acoustic signals, column 5, lines 29 – 42. The sensor located in the earphone-like structure 1 is coupled to a display 9 that is wired to the sensor 1 for display of the biological information. The display 9 is coupled in the wiring which connects the sensor 1 to a signal processor 10. The signal processor 10 includes a memory for storage of the biological information and a control unit 14 for output of audio signals to the speaker 8. As disclosed in the reference, the speaker 8 may be provided with music provided from a reproduction medium, such as a magnetic tape and compact disc which output an audio signal which is coupled to the acoustic signal control unit 14 external input thereto, as shown in Fig. 4 (regeneration apparatus). Thus, nowhere does the reference disclose or suggest utilizing the display, control circuit and memory of a portable electronic entertainment product coupled to the earphone for output of audio and entertainment signals thereto and receiving physiological signals from an output of the signal converting module, as now claimed. The display of the referenced system displays only the biological information and therefore fails to disclose or suggest a display for displaying data relating to operation of the portable electronic entertainment product and the physiological signals, as now claimed. Other than incorporating the processing of physiological signals within the entertainment device, the reference discloses a system which separates the display in one package, a processor in another package, and if entertainment signals are to be provided to the sensor/earphone, yet another package is required

to provide that functionality. Whereas in the invention of the subject Patent Application, the sensor/earphone is connected to the entertainment device, which provides the processing and display functions as well as the function of providing the audio entertainment signals to the earphone.

Therefore, as the reference fails to disclose each and every one of the elements of the invention of the subject Patent Application, as now claimed, it cannot anticipate that invention. Further, as the reference fails to disclose such a combination of elements, and in fact teaches away from that combination, it cannot make obvious that invention either.

The Examiner admits that the Uchida et al. reference fails to disclose the coupling of the biological information sensor to a mobile phone, but refers to the Johansen et al. reference for that disclosure. The Johansen et al. reference does not overcome the deficiencies of Uchida et al. The Johansen et al. reference is directed to a method for performing a hearing test utilizing a computer system. The processor of the computer system may be incorporated in such things as a mobile phone or entertainment device wherein the processor generates a stimulus to a speaker using input from a user that indicates whether the user heard the stimulus or not. Nowhere does the reference disclose or suggest the inclusion of a sensor for detecting physiological conditions of a user. Uchida et al. nor Johansen et al. provide any motivation for the combination suggested by the Examiner. Therefore, it can only be through the improper use of "hindsight" that the

Examiner suggests the combination, based on Applicant's own disclosure as a "blueprint" for such combination.

Arguendo, the reference provides motivation for utilizing the processor of a mobile phone or entertainment device for processing signals in a test system therefore, applying that teaching to Uchida et al., at best provides incorporation of the processor 10 in cellular phone or entertainment device, however, would still require the separate display which only displays the biologic information obtained from the sensor. Nowhere does either reference disclose or suggest a mobile phone including a mobile phone circuit, a display coupled to an output of the mobile phone circuit for displaying data relating to operation of the mobile phone, and the mobile phone circuit receiving the physiological signal from the signal converting module and couples the physiological signal to the display module for display thereof, as now claimed in Claim 3. Nowhere does the reference disclose or suggest a display disposed on the housing for displaying both data relating to operation of the mobile phone and physiological data, as now claimed. Nor does the combination of references disclose or suggest a pushbutton extending from the housing and being longitudinally displaceable to longitudinally displace the detecting unit from an opening in the housing, as now claimed. Therefore, as neither Uchida et al. nor Johansen et al. disclose or suggest the combination of elements which form the invention of the subject Patent Application, and in fact

are not combinable one with the other, they cannot make obvious the invention of the subject Patent Application, as now claimed.

The Ali et al. reference does not overcome the deficiencies of Uchida et al. The Ali et al. reference is directed to a dual-mode pulse oximeter that operates as plug-in module for a multiparameter patient monitoring system, or alternately, portable testing device which is operated independent of the patient monitoring system. The portable pulse oximeter 610 is releasably engageable with a docking station 660. As shown in Fig. 11A, the front panel 1110 has a finger actuated latch 1120 that locks onto a corresponding catch 1244, shown in Fig. 12A, of the docking station 660, allowing the portable oximeter 610 to be releasably retained in the docking station 660. Nowhere does this reference disclose or suggest a portable electronic entertainment product including a display for displaying data relating to operation of the portable electronic entertainment product and the physiological signals, as now claimed nor does the reference disclose or suggest a mobile phone having a display disposed on the housing for displaying both data relating to operation of the mobile phone and physiological data, as now claimed. The reference fails to disclose or suggest a pushbutton extending from the housing and being longitudinally displaceable to longitudinally displace the detecting unit from the opening in the housing, as now claimed.

Therefore, as neither Uchida et al. nor Ali et al. disclose or suggest the combination of elements which form the invention of the subject Patent Application, they cannot make obvious that invention.

For all the foregoing reasons, it is now believed that the subject Patent Application has been placed in condition for allowance, and such action is respectfully requested.

Respectfully submitted,
For ROSENBERG, KLEIN & LEE



David I. Klein
Registration #33,253

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Suite 101
3458 Ellicott Center Drive
Ellicott City, MD 21043
(410) 465-6678
Customer No. 04586